

E151 Lecture 18 Handout

What transfer function do open circuit time constants assume for an amplifier bandwidth? What pole do we assert is dominant? Why?

How do the open circuit time constants of a transfer function relate to the pole time constants?

Describe how to calculate an open circuit time constant

What's the worst case error for open circuit time constants in a 2 pole system? Why are we OK with that error?

Use open circuit time constants to calculate the high frequency cutoff of a common emitter

What's a shortcut for finding the resistance seen by C_{mu} ?

What do we use short circuit time constants to calculate?

What is the assumed form of the transfer function in a SCTC analysis?

How do the sum of the pole frequencies relate to the sum of the SCTC? What is a SCTC?

What capacitors are included in an SCTC analysis?

What are some conditions under which a SCTC analysis will prove inaccurate?